

ABSTRACTApparatus for determining the internal impression of the auditory canal

An apparatus for determining the internal outline of a duct or cavity, comprises light-emitting means (71) suitable for generating a collimated light beam, an elongate probe element (51; 51'; 51'') suitable for being introduced into the duct and for guiding the collimated beam along a predetermined propagation direction, reflector means (52) supported by the probe element (51; 51'; 51'') and suitable for deflecting the collimated beam so as to illuminate the internal wall of the duct, and for deflecting the reflected or diffused light coming from an illuminated point (P) of the internal wall so as to guide it along the probe element (51; 51'; 51''), and detection means (76) suitable for receiving an image of the illuminated point (P), which image is correlated with the optical distance of the point from the detection means (76), and for providing a corresponding electrical signal. The image is formed by the light guided by the receiving reflector means (52). The reflector means comprise a micro-mirror element (52) articulated to a distal end of the probe element (51; 51'; 51''). The micro-mirror element (52) is orientable so as to deflect the collimated beam in selectively different directions.

(Figure 3)